

MYOCARDIAL ISCHEMIA AND INFARCTION

LONG-TERM MORTALITY ASSOCIATED WITH MULTIVESSEL VERSUS CULPRIT VESSEL ONLY PERCUTANEOUS CORONARY INTERVENTION FOR PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: INSIGHTS FROM THE NATIONAL CARDIOVASCULAR CATHPCI DATA REGISTRY

ACC Oral Contributions

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Background: There is ongoing debate whether acute myocardial infarction patients with multivessel coronary disease should undergo multivessel or culprit vessel only PCI. To date, most comparisons have been under-powered to examine associated short- and long-term mortality.

Methods: We examined 18277 STEMI and 30201 NSTEMI patients ≥ 65 years with multivessel disease treated at 930 US hospitals in the CathPCI Registry between 2004 and 2008 after excluding those with prior CABG, left main disease, and cardiogenic shock. These data were linked to Medicare claims data to compare 30-day and 1-year risk-adjusted mortality between culprit only and multivessel index intervention using Cox proportional hazard modeling.

Results: Among patients with multivessel disease, 1891 STEMI (10%) and 8496 NSTEMI (28%) patients underwent multivessel PCI during their index procedure. Unadjusted mortality curves are shown in the Figure. In STEMI, multivessel PCI was not associated with 30-day or 1-year mortality reduction compared with culprit only PCI (adjusted HR 1.10, 95% CI 0.92 - 1.33 and 1.00, 95% CI 0.87 - 1.15, respectively). In contrast, both 30-day and 1-year mortality were lower with multivessel PCI (adjusted HR 0.83, 95% CI 0.72 - 0.96 and HR 0.88, 95% CI 0.81 - 0.96, respectively) in NSTEMI.

Conclusions: Among patients with multivessel disease, multivessel vs. culprit PCI is associated with lower mortality in NSTEMI but not STEMI patients. In NSTEMI, this benefit is largely due to short-term risk reduction.

